CyberData
The IP Endpoint Company

Blueface Configuration Guide: SIP Speaker

Document Part # 931912B

CyberData Corporation
3 Justin Court
Monterey, CA 93940
(831) 373-2601

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CyberData Corporation
3 Justin Court, Monterey, CA 93940
www.cyberdata.net
P 831.373.2601 | F 831.373.4193

Revision Information

- 1/3/2022 – Initial Release
- 1/5/2022 – Name Update

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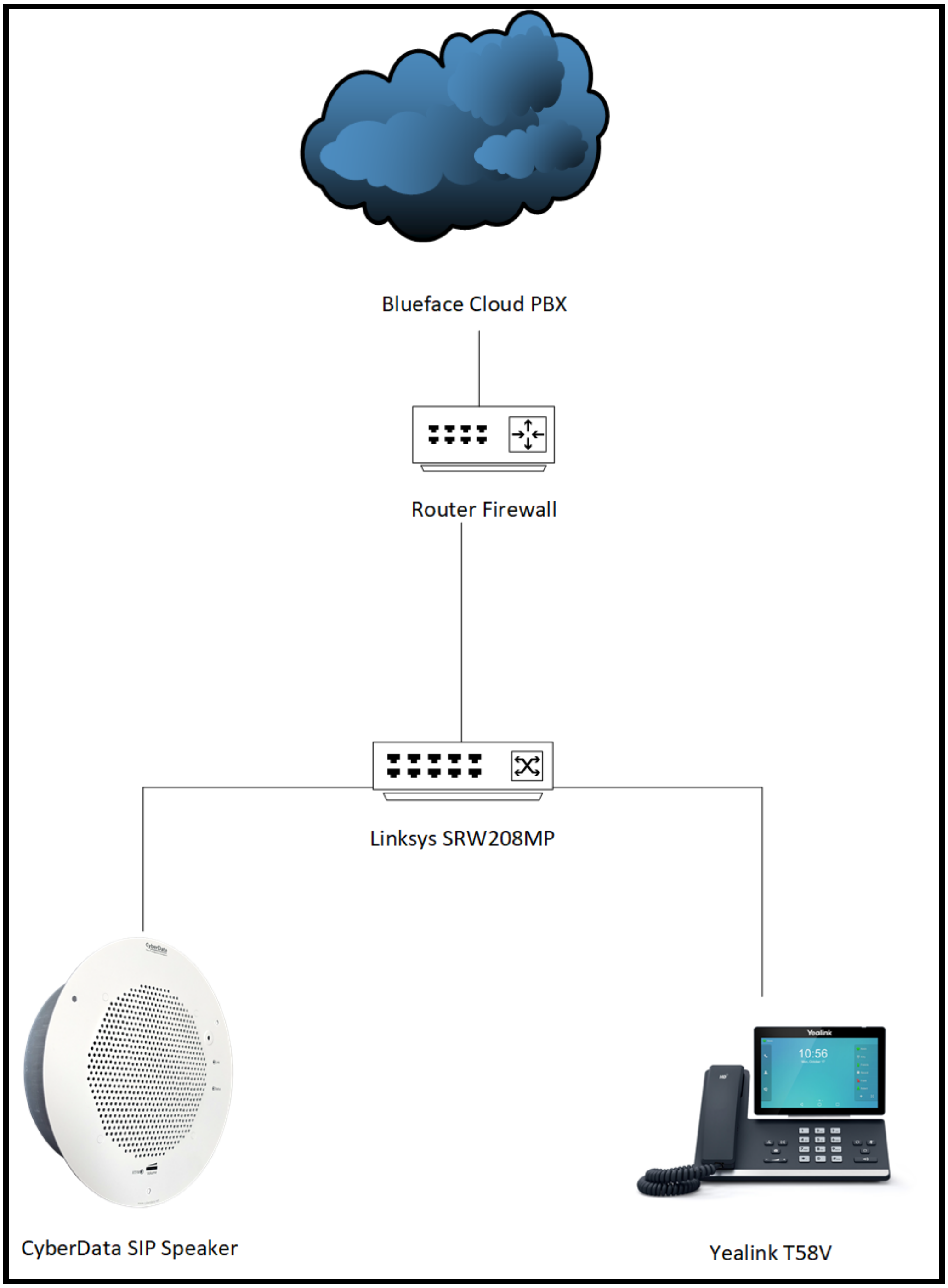


2.0 Test Setup Equipment

This section describes the products used for interoperability testing with Blueface.

Table 2-1: Setup Equipment

EQUIPMENT	MODEL or PART NUMBER	FIRMWARE VERSION
CYBERDATA SIP SPEAKER	011394	12.1.1
CYBERDATA SIP TALKBACK SPEAKER	011398	12.1.1

3.0 Before You Start

This configuration guide documents the integration process of the CyberData SIP Speaker.

Network Advisories

Blueface uses a Fully Qualified Domain Name (FQDN) for the SIP server address. The CyberData SIP Speaker's need to perform a DNS A query to resolve the IP address of Blueface's SIP Server FQDN. It is necessary to ensure the configured DNS server(s) have an A record for the SIP Server address.

In addition, be sure to verify the following ports are available for the speaker to use:

- UDP 5062 (SIP)
- UDP 10500 (RTP)

The speaker will need to traverse the public internet in order to operate with Blueface in the cloud.

The speaker's paging extension uses SIP port 5060 to receive SIP messages. The device will send SIP messages to port 5062, the port used by Blueface's SIP Server.

SIP ports 5060 and RTP port 10500 are the default values on all noted firmware levels.

Alternatively, SIP ports for the device are configurable on the **SIP** page of the web interface.

The CyberData Discovery Utility can be used to locate CyberData devices on your network. You may download it from the following web address:
https://www.cyberdata.net/pages/discovery

> ***Note**: DHCP addressing mode is enabled on default on all noted firmware levels.*

Product Documentation and Utilities
Before you start, download the Operation and Quick Start guides from the speaker's product webpage:
SIP Speaker (011394):
https://files.cyberdata.net/assets/011393,011394/011394_931181L_SIP_Speaker_Ops_Guide.pdf

SIP Talkback Speaker (011398):
https://files.cyberdata.net/assets/011397,011398/011398_931191M_SIP_Talk-Back_Speaker_Operations_Guide.pdf

4.0 Configuration Procedure: Callflow Setup

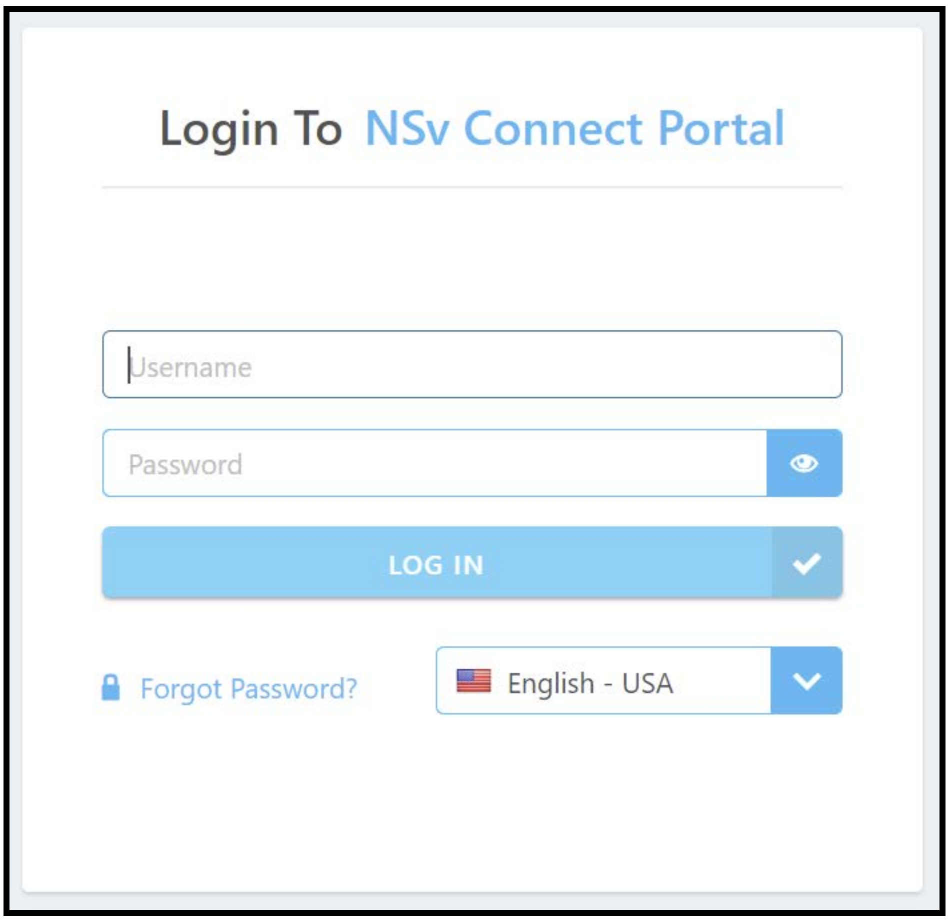
Blueface does not allow users to add their own devices to the platform. The MAC addresses of the devices must be provided to the account manager, who can then add the devices to the platform for you. An email will then be generated and sent to you that will contain the registration information for the CyberData device.

Blueface requires a callflow to be created to call or make a call from any device. This section will outline how to create the dial plan.

1. Log into Blueface.

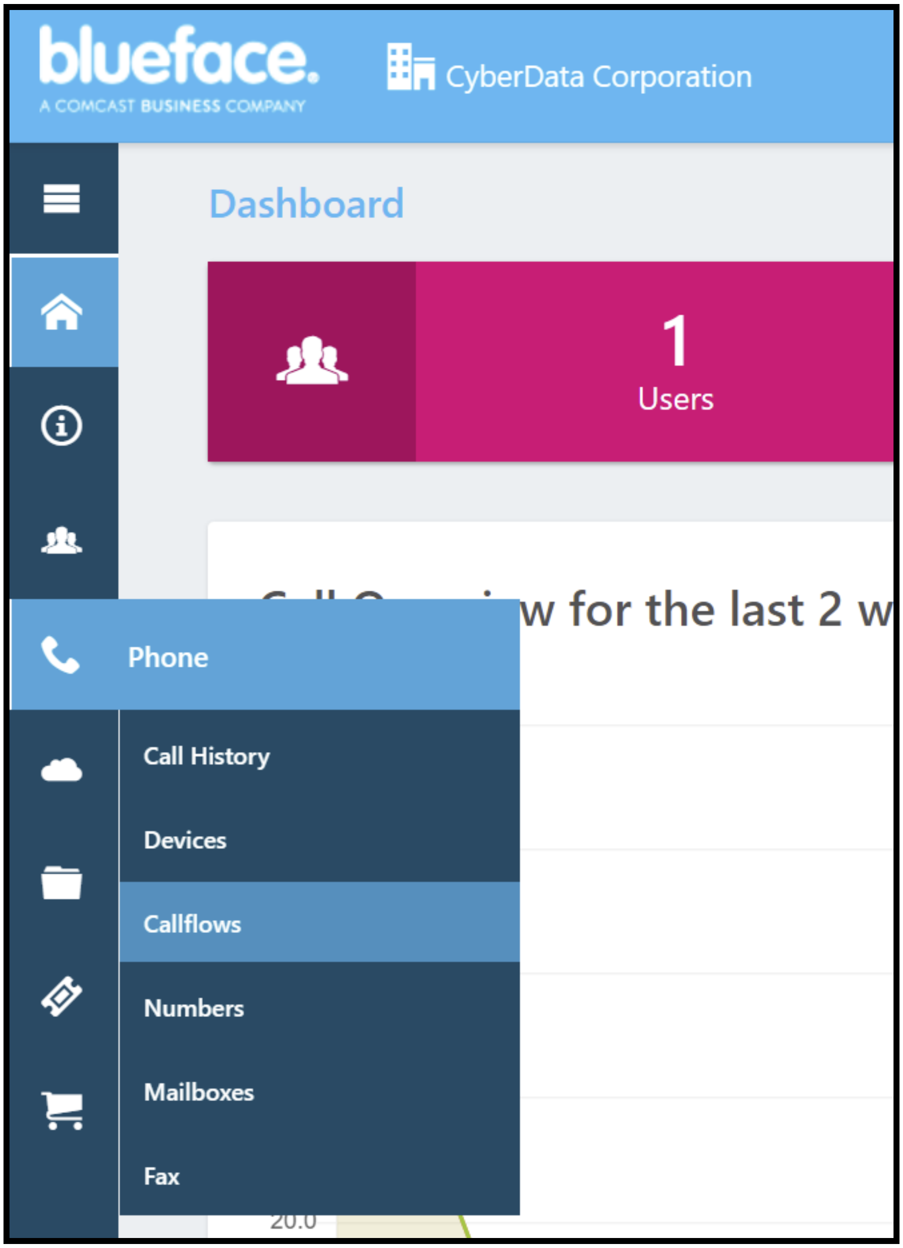
https://portal.nsvconnect.com/login

Figure 4-1: Login



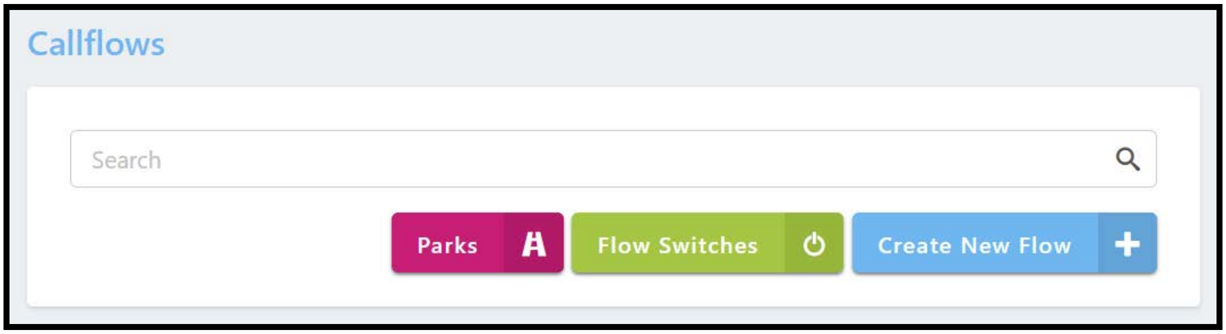
2. From the landing page **Phone** and then **callflows**.

Figure 4-2: Dashboard



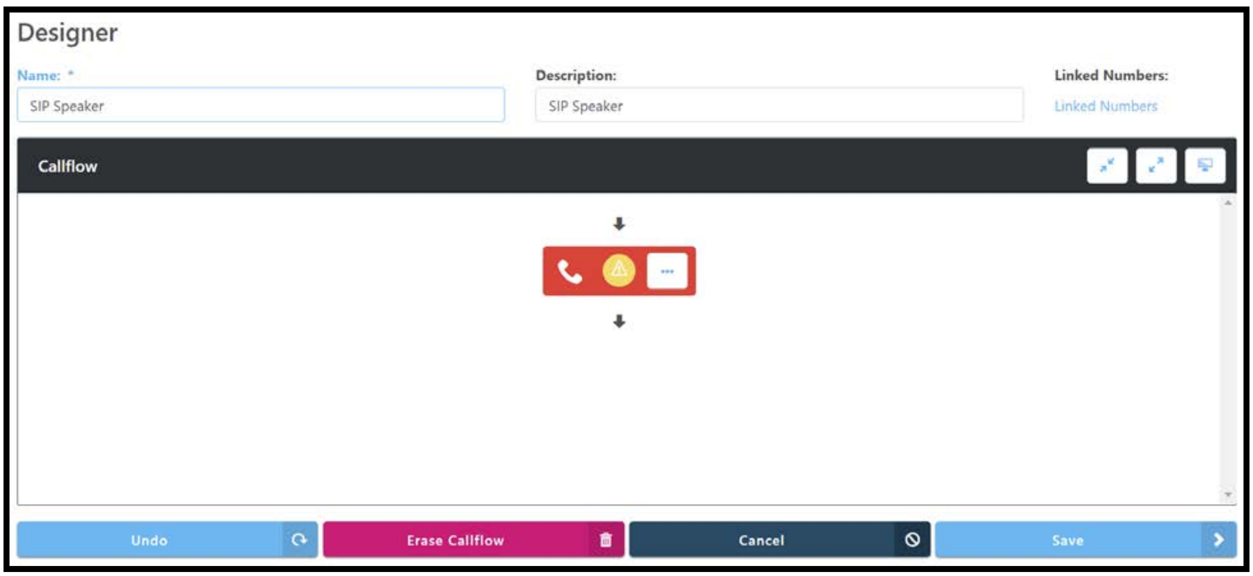
3. On the **Callflows** page press **Create New Flow.**

Figure 4-3: Callflow Page



4. Name the new callflow and set a description.

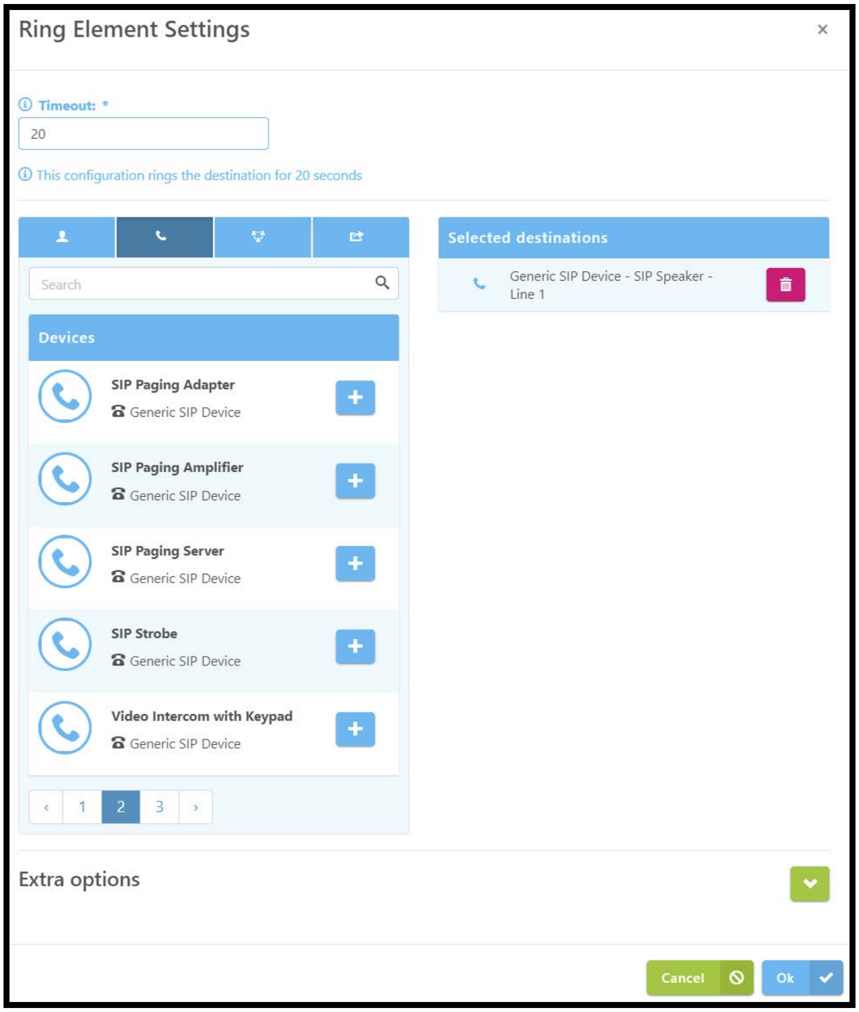
Figure 4-4: Callflow designer



5. From Elements drag **Ring** into the Callflow.

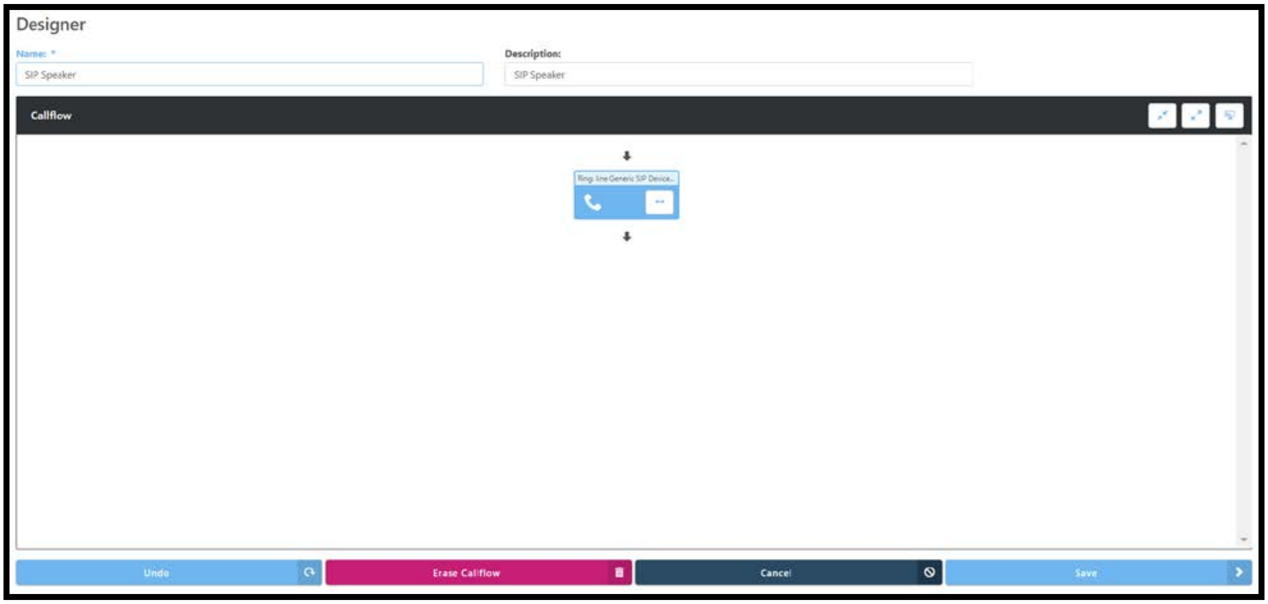
6. Click the yellow exclamation point to open the **Ring Element Settings** popup.
7. Select the Phone tab in the popup.
8. Select the Device that will be used in the group.

Figure 4-5: Ring Element Settings



9. Press Ok to save the device to the callflow.
10. Press Save to save the callflow.

Figure 4-6: Callflow Designer



11. Click the **Save** button to create the Phone.
12. Next link a number to the new callflow.
13. Save the number to the callflow.

Figure 4-7: Link a Number

5.0 Configuration Procedure: Setting up the Paging Extension

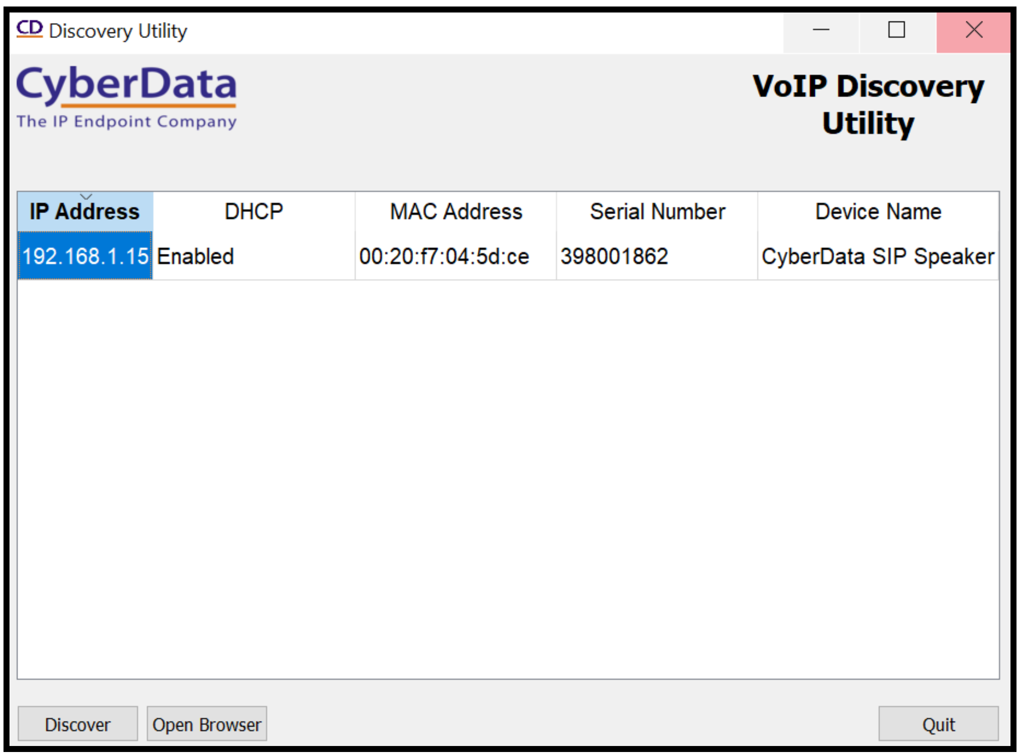
For configuring through the web interface, use the following steps to login to the web interface of your CyberData device.

Table 5-1: Setting Name correlation

CyberData Setting	Blueface Email
Primary SIP Server	SIP Server
Primary SIP User ID	Username
Primary SIP Auth ID	Authentication ID
Primary SIP Auth Password	Password

1. Click **Launch Browser** from the CyberData Discovery Utility or point your browser to the CyberData device's IP address to access the Home Page of the web interface.

Figure 5-1: CyberData Discovery Utility



2. Enter the default credentials when prompted and click the **Log In** button.

Username: admin
Password: admin

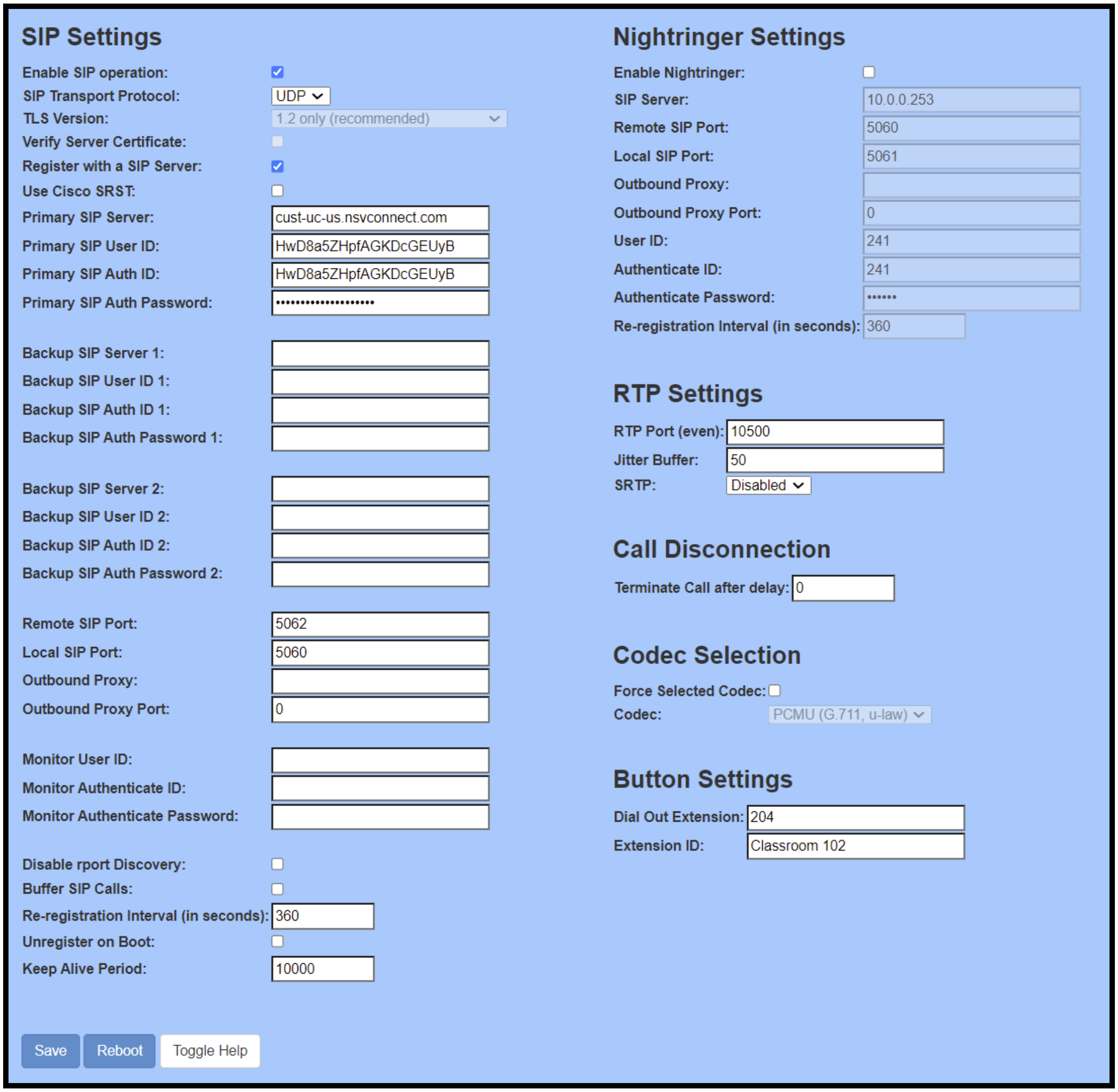
Figure 5-2: Home Tab

3. Navigate to the SIP tab.

Note: *All SIP credentials are listed in an email sent by Blueface after the device was added to the platform.*

4. Set the **Primary SIP Server** to the value listed for SIP Server.
5. Set the **Primary SIP User ID** to the value listed for the Username.
6. Set the **Primary SIP Auth ID** to the value listed for the Authentication ID.
7. Set the **Primary SIP Auth Password** to the value listed for the Password.
8. Set the **Remote SIP Port** to 5062.

Figure 5-2: SIP Tab



9. Save and Reboot.

Once the speaker finishes rebooting the unit should show Registered on the home tab.

Figure 5-3: Home Tab – Registered

5.1 Configuration Procedure: Setting up the Nightringer Extension

The Nightringer Extension is a secondary extension that will ring when called. This makes the Nightringer extension ideal for use in ring groups.

1. Navigate to the web interface of the speaker.

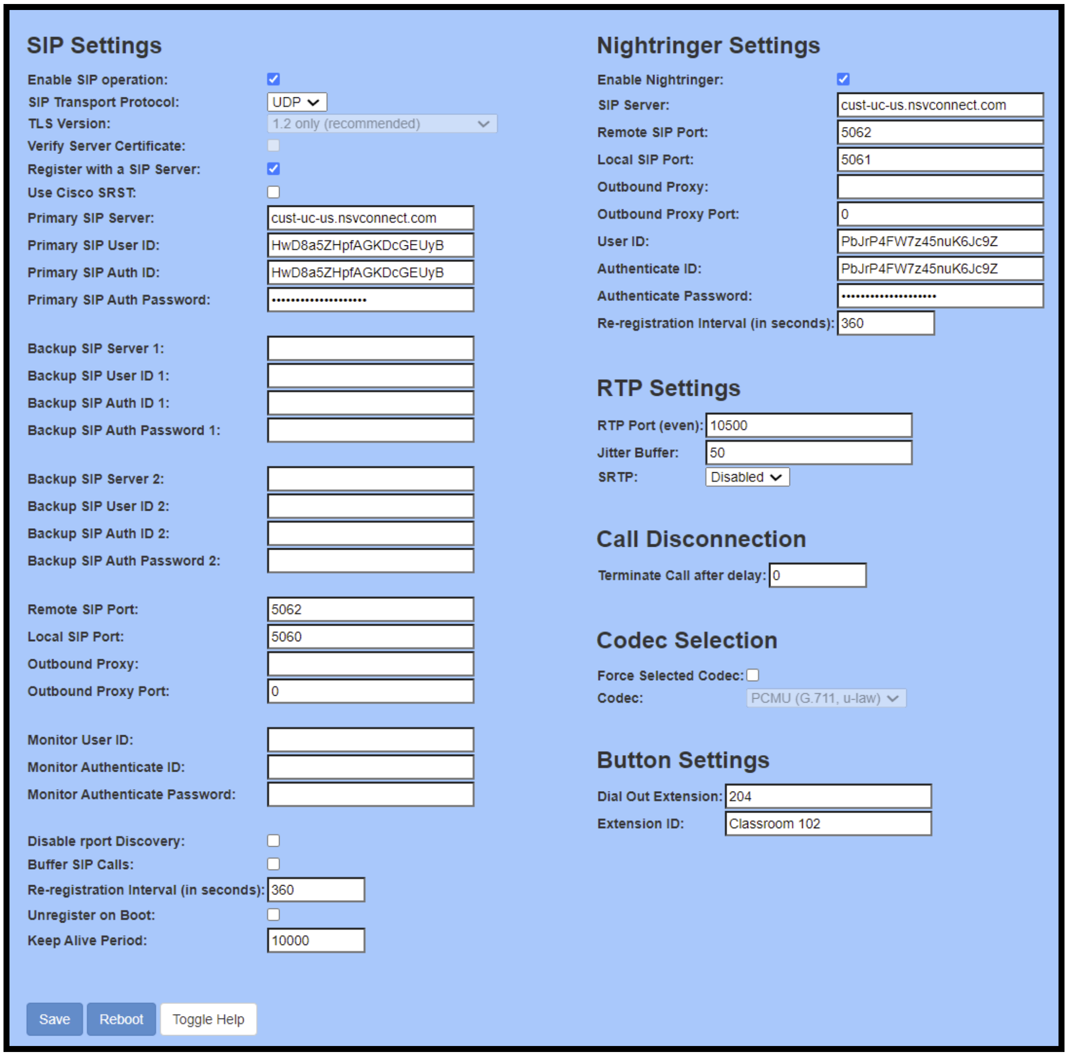
Figure 5-4: Home Tab

2. Navigate to the SIP tab.

Note: *All SIP credentials are listed in an email sent by Blueface after the device was added to the platform.*

3. Check the box **Enable Nightringer**.
4. Set the **SIP Server** to the value listed for SIP Server.
5. Set the **User ID** to the value listed for the Username.
6. Set the **Authenticate ID** to the value listed for the Authentication ID.
7. Set the **Authenticate Password** to the value listed for the Password.
8. Set the **Remote SIP Port** to 5062.

Figure 5-5: SIP Tab - Nightringer



9. Save and reboot the speaker.

If the credentials were added correctly, when the unit finishes rebooting Registered in Green should appear next to Nightringer Status on the Home Tab.

Figure 5-6: Nightringer Registered

6.0 Using CyberData SIP Speakers.

CyberData Speakers are designed for one-way communication. When a call is made to the device an announcement can be made. The units can be used by directly calling the SIP extension, in a page group, or with multicast. This makes the speaker's extremely versatile paging endpoints

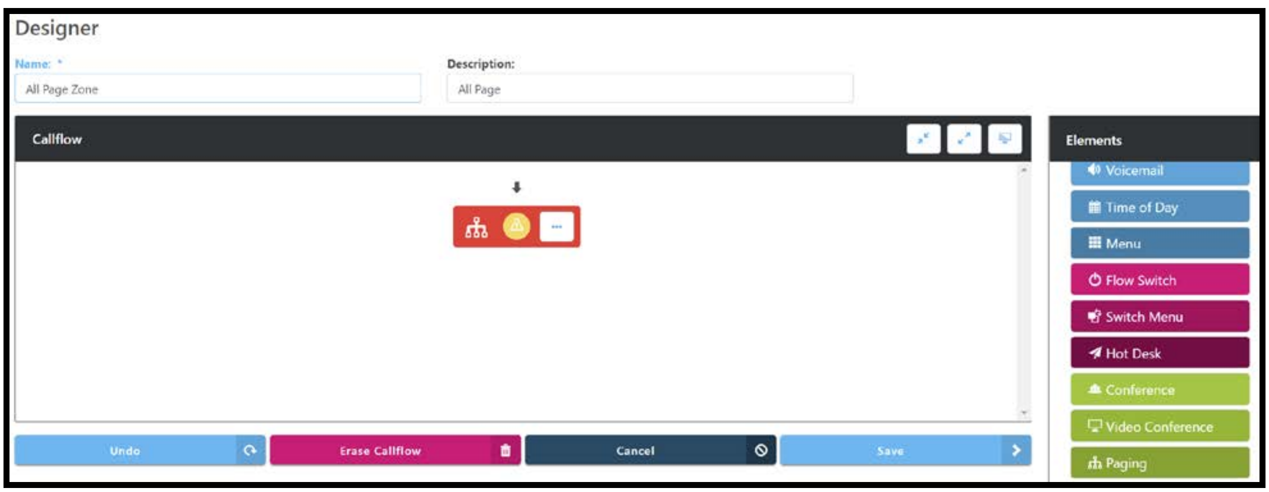
CyberData SIP Speakers also come in a talkback format which allows the speaker to be used for two-way communication. This will typically require the use of the accessory Remote Call Button (011508). The addition of the accessory call button allows a call to be made from the speaker, although the speaker can still be called and used in a two-way conversation without the call button.

6.1 Setting up a page group

After registering the device to Blueface, a page group can be created which allows a call to be made which can reach multiple endpoints simultaneously. This allows for zoned paging directly through the service and does not require additional hardware.

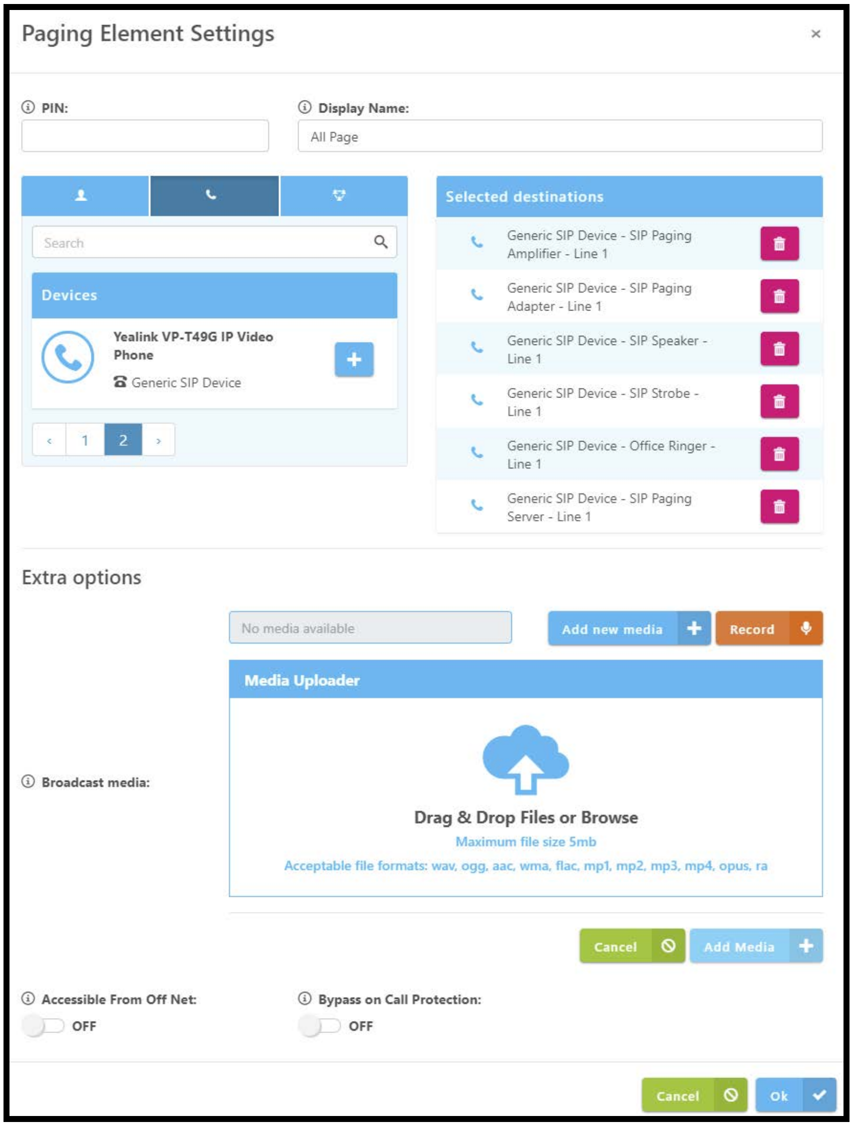
1. Select **Callflows** in Phones on Blueface.
2. Name the new callflow and set a description.
3. In the callflow designer select the Paging Element.

Figure 6-1: Page Group Designer



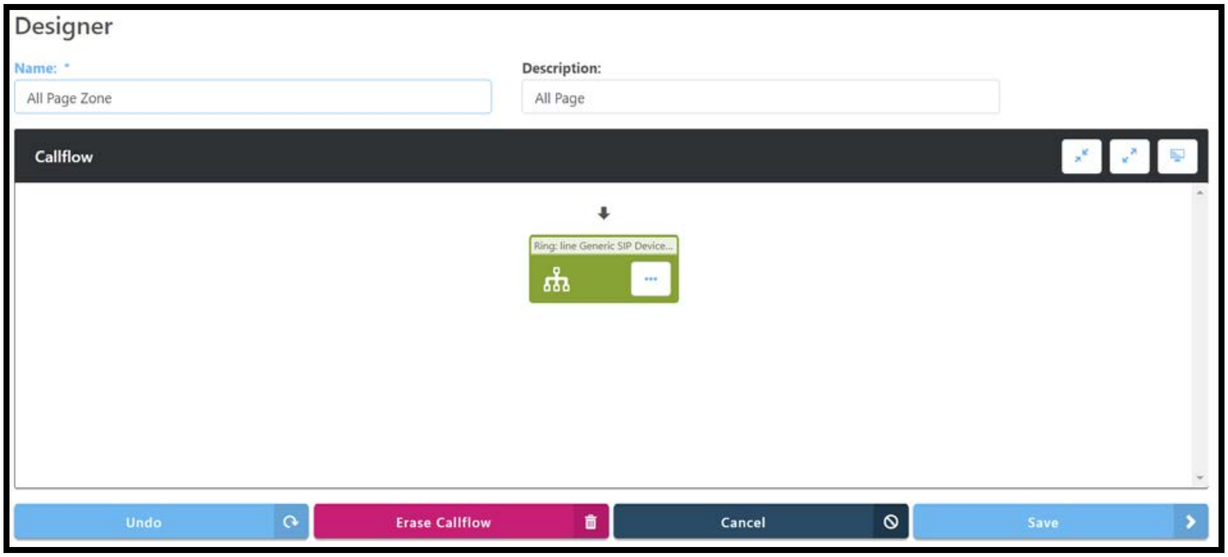
4. After adding the paging element, click on it to assign users.
5. Add all necessary users for the paging group.

Figure 6-2: Paging Element Creation



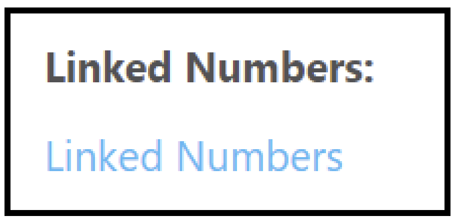
6. Once all the desired users are added, press Ok.
7. Next save the new call flow.

Figure 6-3: Callflow Created



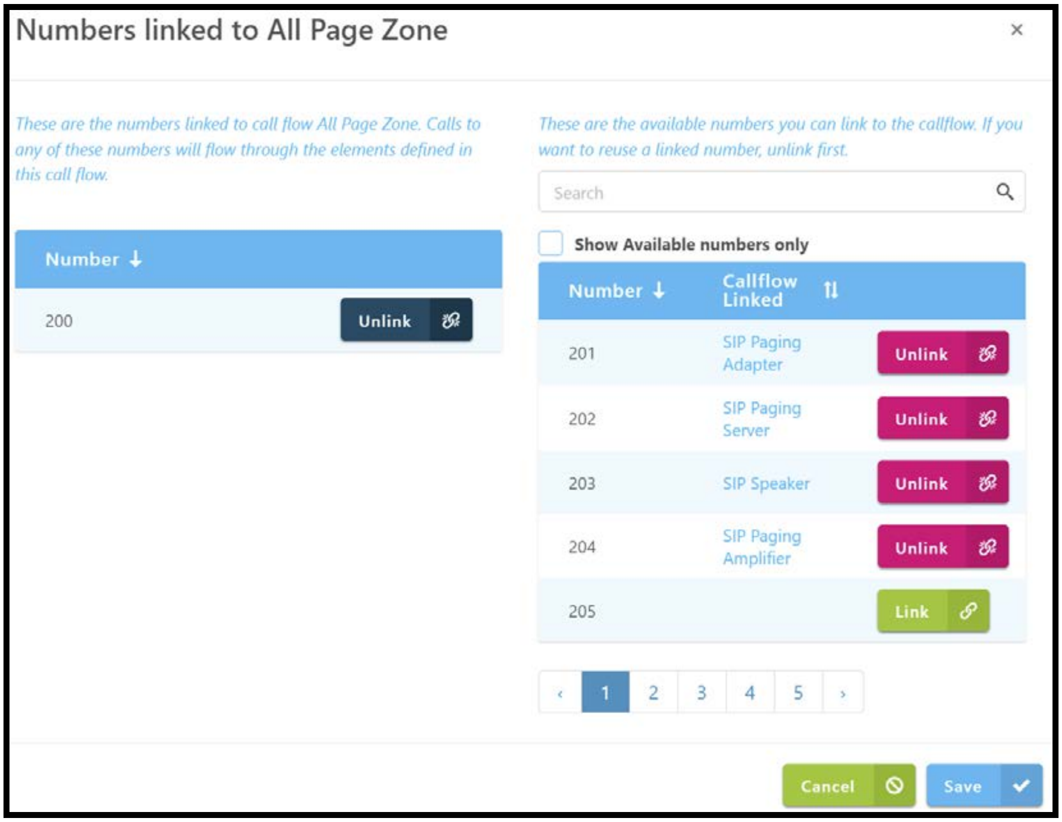
8. After saving the callflow click **Linked Numbers** to set an extension number for the paging group callflow.

Figure 6-4: Linked Numbers



9. Set a number for the paging group.

Figure 6-5: Linking Number



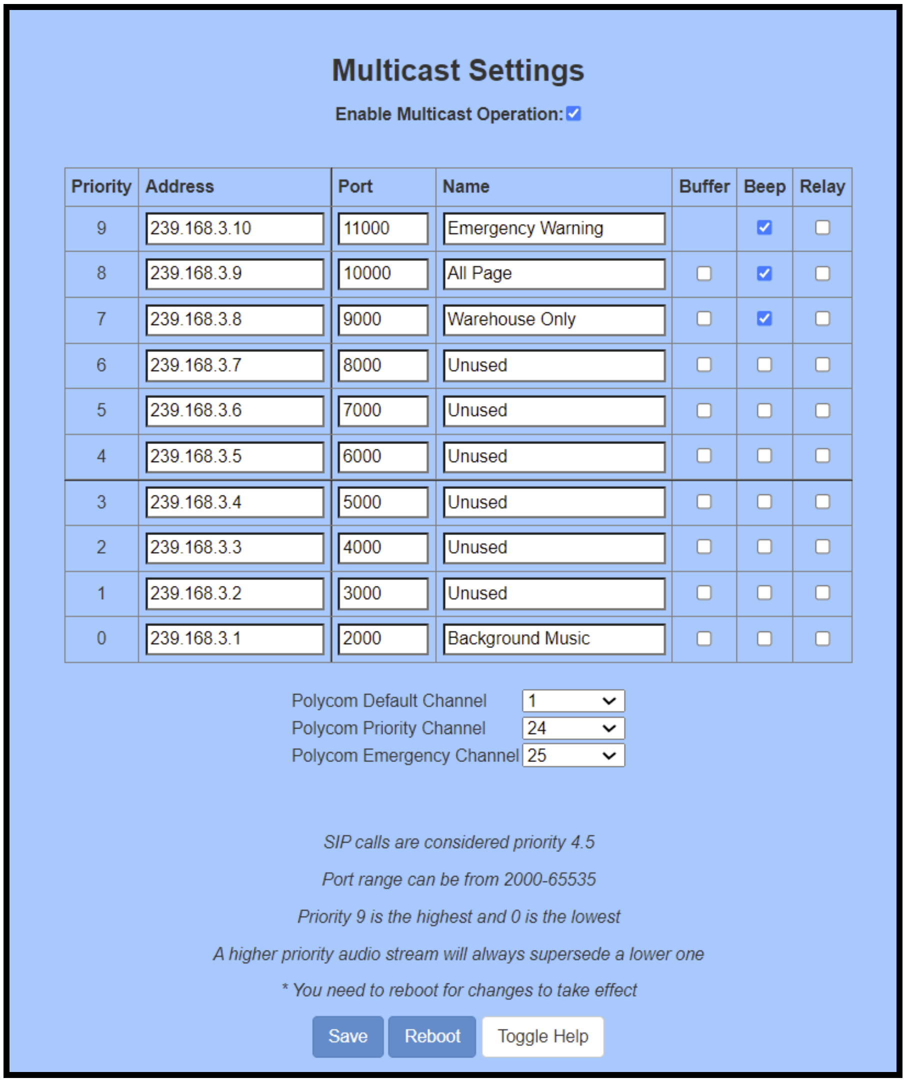
10. Press Save to save the number to the callflow.

The callflow is now ready to be used. When called it will send a SIP call to all group elements and allow a page to be made.

6.2 Multicast Setup

Most CyberData devices support Multicast which is a protocol that allows for easy paging on a local area network (LAN). This section will illustrate how to setup the device to listen for multicast and the different settings that work with multicast.

Figure 6-6: Multicast Tab


Multicast Settings

Enable Multicast Operation: ☑

Priority	Address	Port	Name	Buffer	Beep	Relay
9	239.168.3.10	11000	Emergency Warning		☑	☐
8	239.168.3.9	10000	All Page	☐	☑	☐
7	239.168.3.8	9000	Warehouse Only	☐	☑	☐
6	239.168.3.7	8000	Unused	☐	☐	☐
5	239.168.3.6	7000	Unused	☐	☐	☐
4	239.168.3.5	6000	Unused	☐	☐	☐
3	239.168.3.4	5000	Unused	☐	☐	☐
2	239.168.3.3	4000	Unused	☐	☐	☐
1	239.168.3.2	3000	Unused	☐	☐	☐
0	239.168.3.1	2000	Background Music	☐	☐	☐

Polycom Default Channel 1
Polycom Priority Channel 24
Polycom Emergency Channel 25

SIP calls are considered priority 4.5

Port range can be from 2000-65535

Priority 9 is the highest and 0 is the lowest

A higher priority audio stream will always supersede a lower one

** You need to reboot for changes to take effect*

Save Reboot Toggle Help

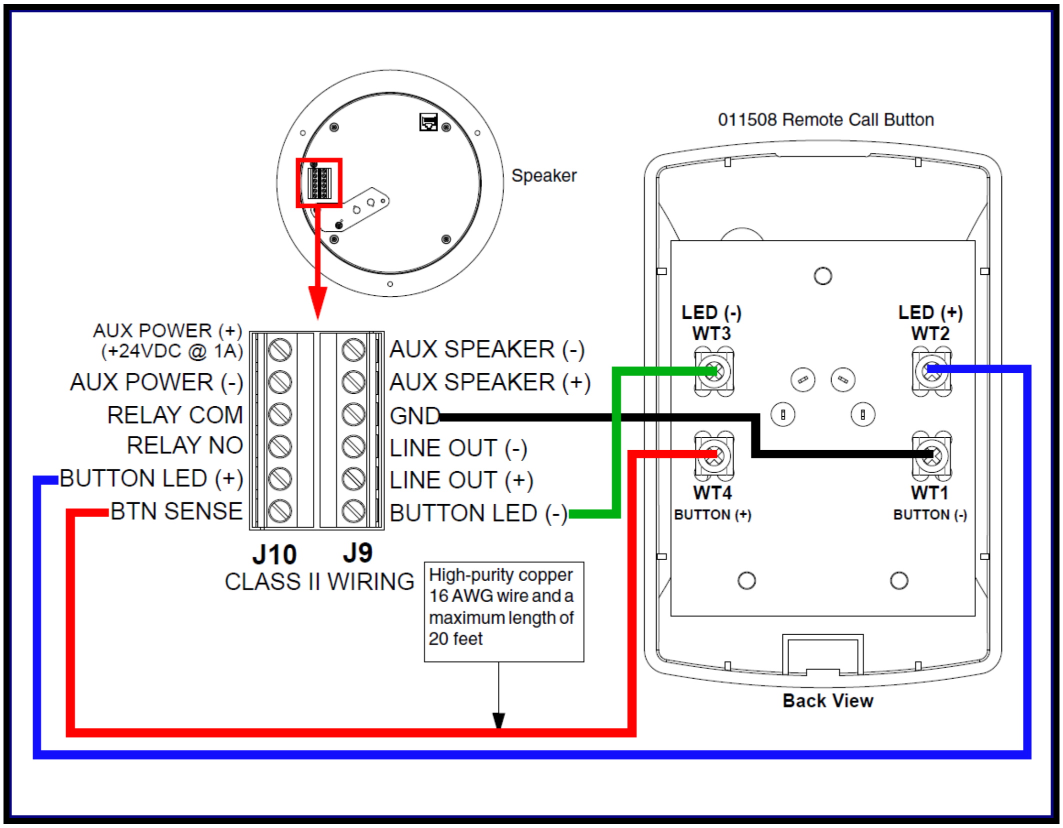
The multicast engine workings on priority, higher priority supersedes a lower priority. CyberData recommends setting all pages or emergency pages to a higher priority, this will prevent a non-emergency message playing over any emergency notifications. There are also options to Buffer the message, play a beep tone before the message or enable the onboard relay for the duration of the message.

6.3 Remote Call Button Setup

This section walks through the process of wiring and enabling the Remote Call Button (011508). While this accessory is not required to use the speaker in a two-way call, the button is typically installed to allow a call to be made from the speaker.

To use the button it must first be wired to the speaker. The button uses a four-wire connection which notifies the speaker of the call button being pressed but also applies power to the button to illuminate the LED.

Figure 6-7: Button Wiring Diagram



1. With the speaker disconnected from power use a small screwdriver to wire the button to the speaker.

Note: *CyberData recommends a 16 AWG wire with a maximum length of 20 feet.*

2. After wiring the button to the speaker, connect the speaker back to power and mount both the speaker and button in place.
3. As the speaker boots up the button's LED ring should illuminate.

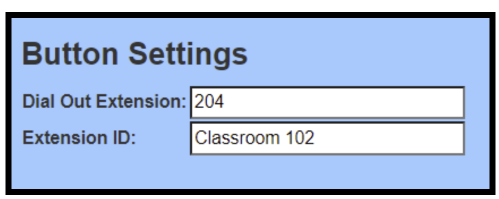
4. Navigate to the SIP Talkback Speaker's web interface.
5. From the Home tab, click on the Device Tab.
6. On the Device Tab, check the box for **Button Installed** located in the Button Settings section.
7. Adjust any settings as necessary, CyberData recommends using the setting **Play Ringback Tone** to alert the user of the speaker that the call is being setup.

Figure 6-8: Button Settings

Note: *The setting **Prevent Call Termination** is useful in some scenarios where a call should not be ended from the speaker. CyberData finds this setting to be used frequently with the talkback speakers when located in schools. This will prevent a second press of the button on the speaker from ending the call.*

8. Save.
9. Navigate to the SIP Tab.
10. Set the **Dialout Extension** to the number that will be called when the accessory button is pressed.
11. Set the **Extension ID** to the location of the speaker

Figure 6-9: Button Settings – Dialout



12. Save.
13. Reboot.

Once the speaker has booted back up, pressing the call button accessory will trigger a call from the speaker.

7.0 Contact CyberData Corporation

Sales

For sales-related questions, please visit our Contact CyberData Sales web page for more information.

Technical Support

For CyberData Technical Support, please submit a Contact CyberData VoIP Technical Support form on our website.

The CyberData VoIP Technical Support Contact form initiates a troubleshooting ticket which CyberData uses for quality assurance purposes.

Additionally, the Contact VoIP Tech Support form tells us which phone system you are using, the make and model of the network switch, and other essential troubleshooting information we need to efficiently assist with a resolution. Please also include as much detail as possible in the Describe Problem section of the form. Your installation is extremely important to us.

Documentation Feedback

We realize changes to the software or hardware of the PBX solution may render this document obsolete. We welcome and encourage documentation feedback to ensure continued applicability.